

CLAIM SET AS AMENDED

1. (Currently Amended) A fuel injection control system for an internal combustion engine, the engine for transmitting a driving force to an output shaft through a transmission, comprising:

means for detecting engine speed NE;

means for determining a fuel injection quantity as a function of said engine speed NE;

means for discriminating a gear position of said transmission; and

means for correcting said fuel injection quantity on the basis of the discrimination result of said gear position;

means for detecting a throttle opening θ_{TH} ; and

a TH map in which said fuel injection quantity has been registered with the engine speed NE and the throttle opening θ_{TH} as parameters,

wherein said fuel injection quantity is determined on the basis of said TH map.

2. (Currently Amended) The fuel injection control system for an internal combustion engine according to claim 1, wherein said correction means comprises:

means for determining a correction factor as a function of a the gear position;

and

means for multiplying said fuel injection quantity by said correction factor.

3. (Currently Amended) The fuel injection control system for an internal combustion engine according to claim 2, wherein said means for determining said correction factor determines said correction factor as a function of the gear position and the engine speed.

4. (Cancelled)

5. (Original) The fuel injection control system for an internal combustion engine according to claim 2, wherein the lower the gear position becomes, the more said correction means reduces the fuel injection quantity.

6. (Original) The fuel injection control system for an internal combustion engine according to claim 3, wherein the lower the gear position becomes, the more said correction means reduces the fuel injection quantity.

7-9. (Cancelled)

10. (Currently Amended) ~~The~~ A fuel injection control system for an internal combustion engine, the engine for transmitting a driving force to an output shaft through a transmission, according to claim 4, further comprising:

means for detecting engine speed NE;

means for determining a fuel injection quantity as a function of said engine speed

NE;

means for discriminating a gear position of said transmission;

means for correcting said fuel injection quantity on the basis of the discrimination

result of said gear position;

means for detecting a throttle opening θ_{TH} ; and

a TH map in which said fuel injection quantity has been registered with the engine speed NE and the throttle opening θ_{TH} as parameters,

wherein said fuel injection quantity is determined on the basis of said TH map, and

wherein the lower the gear position becomes, the more said correction means reduces the fuel injection quantity.

11. (Original) The fuel injection control system for an internal combustion engine according to claim 1, wherein said means for discriminating the gear position discriminates the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

12. (Original) The fuel injection control system for an internal combustion engine according to claim 2, wherein said means for discriminating the gear position discriminates the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

13. (Original) The fuel injection control system for an internal combustion engine according to claim 3, wherein said means for discriminating the gear position discriminates the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

14. (Currently Amended) The fuel injection control system for an internal combustion engine according to claim ~~[[4]]~~ 10, wherein said means for discriminating the gear position discriminates the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

15. (Cancelled)

16. (Currently Amended) A fuel injection method for an internal combustion engine, the engine for transmitting a driving force to an output shaft through a transmission, said method comprising the steps of:

detecting engine speed NE;

determining a fuel injection quantity as a function of said engine speed NE;

discriminating a gear position of said transmission; and

correcting said fuel injection quantity on the basis of the discrimination result of said gear position;

detecting a throttle opening θ_{TH} ;

providing a TH map in which said fuel injection quantity has been registered with the engine speed NE and the throttle opening θ_{TH} as parameters; and
determining said fuel injection quantity on the basis of said TH map.

17. (Currently Amended) The method according to claim 16, wherein said step of correcting further comprises the steps of:

determining a correction factor as a function of a the gear position; and
multiplying said fuel injection quantity by said correction factor.

18. (Original) The method according to claim 17, wherein said step of determining said correction factor further comprises the step of determining said correction factor as a function of the gear position and the engine speed.

19. (Currently Amended) The method according to claim 16, wherein the lower the gear position becomes, the more ~~said correction means reduces~~ the fuel injection quantity is reduced.

20. (Cancelled)

21. (Original) The method according to claim 16, wherein said step of discriminating the gear position further comprises the step of discriminating the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

22. (New) The method according to claim 17, wherein the lower the gear position becomes, the more the fuel injection quantity is reduced.

23. (New) The method according to claim 18, wherein the lower the gear position becomes, the more the fuel injection quantity is reduced.

24. (New) The method according to claim 17, wherein said step of discriminating the gear position further comprises the step of discriminating the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

25. (New) The method according to claim 18, wherein said step of discriminating the gear position further comprises the step of discriminating the gear position on the basis of said engine speed NE and a vehicle speed Vpls.